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(54) **Device for the hygienic protection for containers for drinks.**

(57) The invention refers to a device for the hygienic protection particular of containers for liquids.

According to the invention the device includes a first, basically flat portion (21), capable of fitting over at least a fraction of the lid (11) of the container (10) in question, and a second portion (25), basically perpendicular to the first one, capable of fitting over at least a portion of the side surface (12) of the container itself, in the proximity of its upper edge.

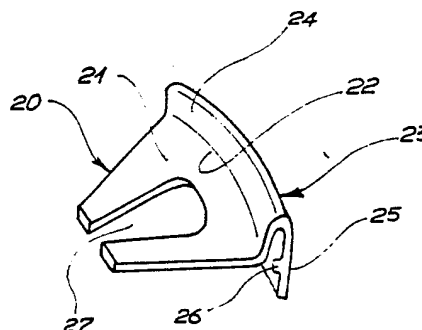


Fig. 4

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Device for the hygienic protection for containers for drinks

The problem stemming from the use of containers for liquids, in particular drinks, from which the users draw directly with their lips, as in the case of cans, is well-known. Since the containers are handled by many people and may be stowed in hygienically unsafe environments, the surface of the container over which the liquid has at least in part to flow, and on which the user has at times to rest his lips do not provide a sufficient guarantee of cleanliness.

For this purpose, according to a previous invention of the same patentee, a portion at least of the upper surface of the can and a portion of the adjacent side surface are protected by a device for hygienic protection, either single or double, which allows a portion of surface which is certainly clean to be uncovered, after removal of the device by the user.

The object of this invention is to create a special type of device for hygienic protection which may even be applied before or after opening the container, in the proximity of the hole in the lid and which allows one's lips to be placed on a surface which is certainly clean.

According to this invention the protective device is made of an elastic material, preferably having the shape of a circular sector, and it is equipped with a preferably cylindrical flange adjacent to the side surface of the can.

According to a preferred embodiment of the invention, the inner sharp edge connecting the circular sector and said flange is shaped in such a way that it fits onto the rim surrounding the edge of the can, and therefore in this case it is not necessary to secure said device for hygienic protection to the surface of the can with means that involve the surfaces coming into contact with one another, much as adhesives and so on.

Said device for hygienic protection may be equipped with a thin upper protecting film to be removed at the time of use.

According to an alternative form, said film may be lacking, but in this case the device for hygienic protection will be distributed contained in a sealed bag or similar packaging.

The following description refers to forms of embodiment chosen by way of example with specific reference to the attached drawings, in which:

- figure 1 is a view from above of the lid of a container equipped with the protective device according to the invention;

- figure 2 is a partial cross-section on the plane II-II;

- figure 3 is a view from above of the device for hygienic protection before it is applied to the

container;

- figure 4 is a view in perspective of the same device;

- figure 5 and figure 6 are similar to figures 1 and 2 respectively, but they refer to a variant of the embodiment;

- figure 7 is similar to figure 4 and shows, together with the claimed device for hygienic protection, also a layer of coating in a lifted position;

- figure 8 is also similar to figure 4, but it shows the claimed device inside a sealed transparent bag;

- figure 9 is a variant of figure 1;

- figure 10 is yet another variant;

- figure 11 is similar to the foregoing, but refers to a different position of the device for hygienic protection;

- figure 12 is a cross-section on the plane XII-XII of figure 11.

With specific reference to figures 1 to 4, 10 indicates a drink can; 11 and 12 indicate the basically flat lid and the cylindrical side surface respectively. The lid, 11, has in it an elongated and rounded-shaped cut 13 that, by means of a ring which is seized, allows the portion 16 of said lid defined by said cut 13 to be torn away, creating in this way an opening 15 through which the liquid can pass.

In the known manner the lid 11 and the cylindrical surface 12 of the can 12 are joined and sealed together by means of a fold which creates all around the edge of the lid a small rim 17, protruding upwards and possibly outwards, as can be seen in figures 2 and 6.

The device for hygienic protection according to the invention, indicated as a whole as 20, has a basically flat sector 21, the arched edge 22 of which is folded first upwards and then downwards to as to create a ridge 23 which takes in the rim 17 and comes to rest on the side surface 12 of the container. The ridge 23 therefore has an ascending wing 24 and a descending wing 25; on the inside surface of the latter there is, in the case illustrated in the figure, a rim or a recess 26 capable of making it easier to fit the ridge on the rim 17.

With other types of connection between the lid 11 and the side surface 12, the device for hygienic protection 20 will always have a basically flat sector 21 and a flange 25, preferably cylindrical. In the absence of the rim 17, for example, it is sufficient for the sector 21 to extend for an angle larger than 180°. of course other solutions are possible to ensure that the device is secured to the can, using adhesive inserts.

Instead of fitting onto the container, the device

for hygienic protection could be secured to the container 10 by means of a thin adhesive layer, possibly protected by an anti-adhesive film in the event that the protective device is not applied at the origin, at the time of manufacturing. When the presence of the rim 17 allows the fitted solution illustrated in the figure, this is found to be the most convenient, also because it allows the protective device to be moved circumferentially even after its application. This is particularly useful for placing the device for hygienic protection in a centred position as compared to the opening 15. Circumferential movement also allows the device for hygienic protection to be used as a means for closing the container.

According to the invention, the flat sector-shaped part 21 of the device for hygienic protection is equipped with a hollow 27, having a shape basically similar to the shape of the edge of the opening 15, so that after the application of the device for hygienic protection 20 it is possible to seize the ring 14 and remove the small lid 16 without being hindered by the flat, sector-shaped part 21 of the device for hygienic protection 20. When the device is applied after opening the can, the hollow 27 can have any shape.

The device for hygienic protection may be supplied loose, separately from the container 10, to be applied on top of it directly by the user.

So that the surfaces of the device for hygienic protection 20 which must come into contact with the lips of the user remain protected up until the time of use, said surfaces may be equipped with a thin protective film 28, indicated by a dashed line. Said film will be torn away at the time of opening the container 10, or at the time of consuming the product.

As an alternative, the protective device 20 may be supplied without said protective film, but in this case the latter will be distributed packed inside a sealed container 30 which may contain one or more protective devices 20, as shown in figure 8. For example, each device for hygienic protection could be supplied inside a sealed bag.

The device for hygienic protection 20 is preferably made of a basically stiff plastic material, but capable of elastic deformation sufficient to take in the rim 17. Of course it may be made of other materials, for example of pressed metal, although the plastic version is probably the most convenient.

Figures 5 and 6 refer to a variant in which the container 110 is equipped with a small lid 116 to be pushed inside the container rather than pulled outwards. In this case, subject to the remaining features already described, the protective device 120 instead of the hollow 27 may have an area with a punched edge 127 that can be pushed inside the container together with the small lid 116.

If, under the punched area 127, a thin layer of adhesive is spread capable of adhering to the upper surface of the small lid 116 which drops inside the container 110, the liquid will be preserved from any contact with the dirty outer surface of the small lid 116. Said adhesive layer will be covered with a thin protective film to be removed before use.

To summarise the foregoing paragraphs, we could say that the device is made preferably of elastic-plastic material in the shape of a circular sector in the part that is located on the top of the can and preferably of a cylindrical flange descending perpendicularly preferably to mate with part of the side surface of the can. According to a variant, the cylindrical flange could face upwards, concave, in an exactly opposite manner, so as to form a sort of pouring spout.

In this case, at the base at the bottom of the upward-facing flange a means for fitting the device to the edge of the can has to be provided.

The solution illustrated in figure 9 envisages a device for hygienic protection 220 having an angular width sufficient to cover the opening 15 if it is turned towards the left or to the right; in this way the device for hygienic protection has a dual function: hygienic protection and a means for closing the container.

This second function occurs when the hollow 227 is not superimposed on the opening 15 previously made in the lid of the container.

In figures 10 to 12, the device for hygienic protection 320 has an angular width of 360° . In this case, the device for hygienic protection may be applied, after opening the container, really as a revolving cover which, in the position illustrated in figure 10 acts as a device for hygienic protection, while in the position illustrated in figure 11, it acts as a plug covering the opening 15.

In the form of embodiment illustrated in figures 10 to 12, the device for hygienic protection can be applied onto the can by pressure, with no special means for securing it.

Claims

1. Device for the hygienic protection particularly of containers for drinks, characterised by the fact that it includes a first basically flat portion (21), capable of being placed over at least a fraction of the lid (11) of the container (10) in question, and a second portion (25), basically perpendicular to the first, capable of being placed over at least a fraction of the side surface (12) of the container itself, in the proximity of its upper edge; wherein said first basically flat portion (21) is equipped with a hollow (27, 127, 227, 327) capable of fitting over the

opening (15) of the associated container.

2. Device for the hygienic protection particularly of containers for drinks according to the foregoing claim 1, characterised by the fact between the first portion (21) and the second portion (25) of the protective device there are means for elastic fitting for the sharp edge connecting the lid (11) and the side surface (12) of the container (10).

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3. Device for hygienic protection, according to claim 1, characterised by the fact that the concave connecting area between the first (21) and the second (25) portion of the device is fitted with a groove capable of fitting into it the rim which may exist around the edge of the lid of the container.

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4. Device for hygienic protection according to claim 1, characterised by the fact that the first portion (21) of the device is equipped with an open hollow (27) capable of fitting over the tear-off opening of the associated container.

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5. Device for hygienic protection according to claim 1, characterised by the fact that the first portion of the device is equipped with a punched area (127) capable of being pushed inside the container under the effect of a concentrated pressure, together with a small lid of the associated container, opened by pressing, so as to obtain said hollow (127) in the first flat portion of the device.

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6. Device for hygienic protection according to claim 1, characterised by the fact that the outer surface of said device is coated with a removable film (28).

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7. Device for hygienic protection according to claim 1, characterised by the fact that said device is supplied to the user inside a sealed container (30).

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8. Device for hygienic protection according to claim 1, characterised in that the angular width of said first basically flat portion of the device (220) is greater than twice the angular width of the opening (15) of the lid of the container (10).

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9. Device for hygienic protection according to claim 1, characterised in that the angular width of the device (320) is equal to 360° , so that the first basically flat portion and the second portion, perpendicular to the first, can be pushed over the container so as to crease a second revolving lid to close the opening (15) if so desired.

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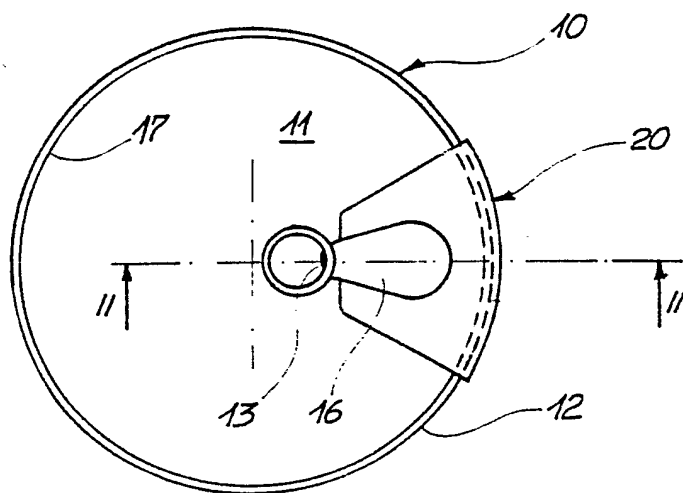


Fig. 1

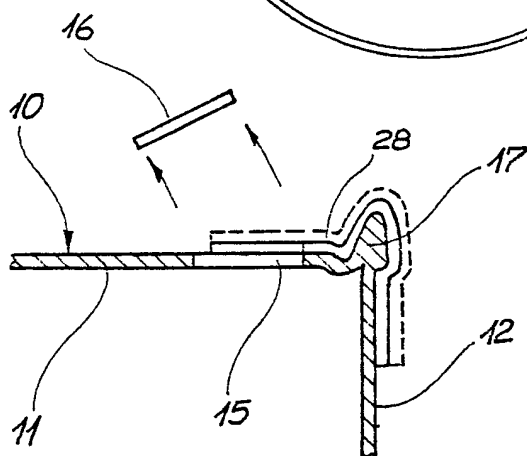


Fig. 2

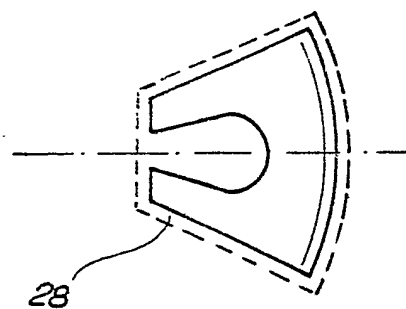


Fig. 3

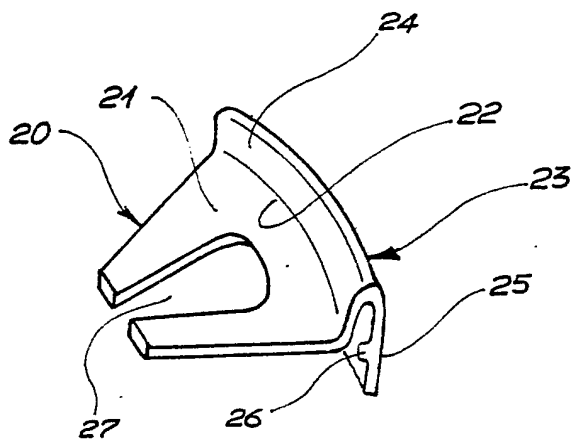


Fig. 4

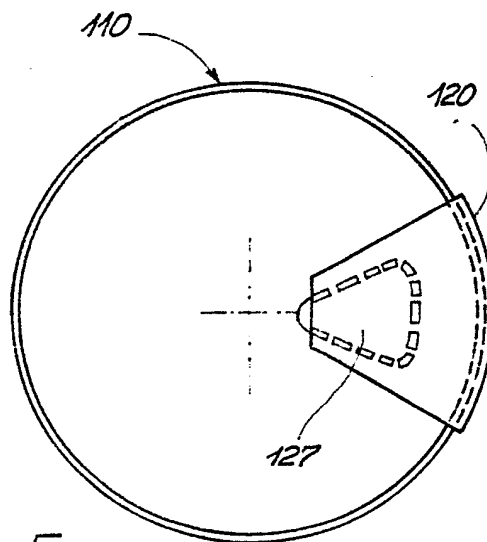


Fig. 5

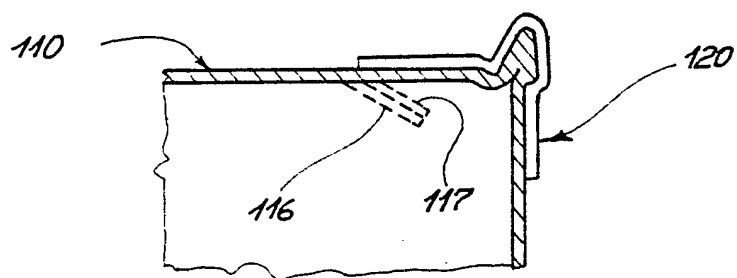


Fig. 6

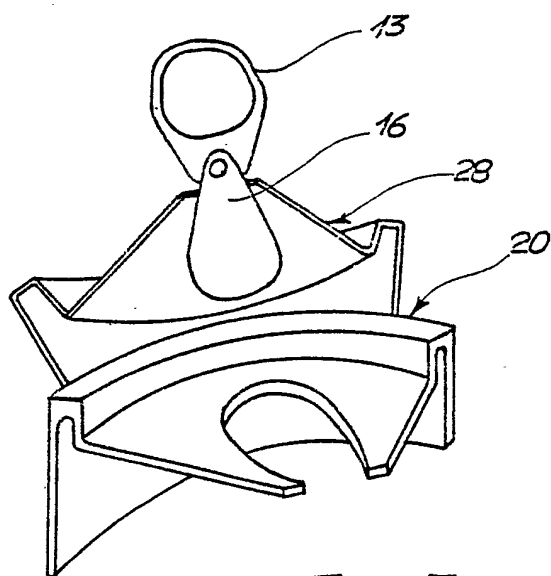


Fig. 7

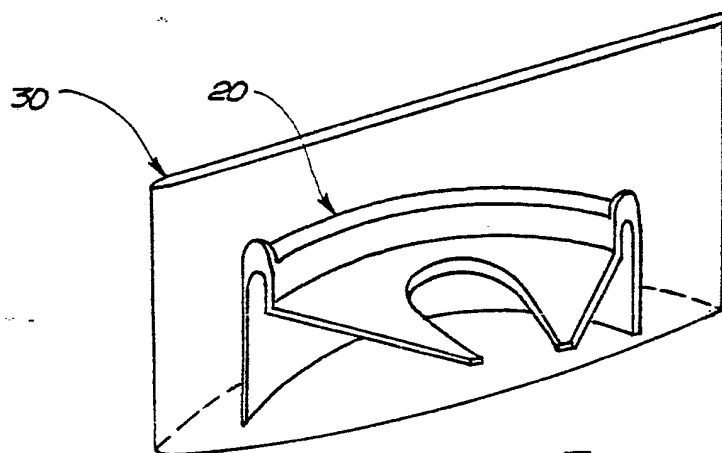


Fig. 8

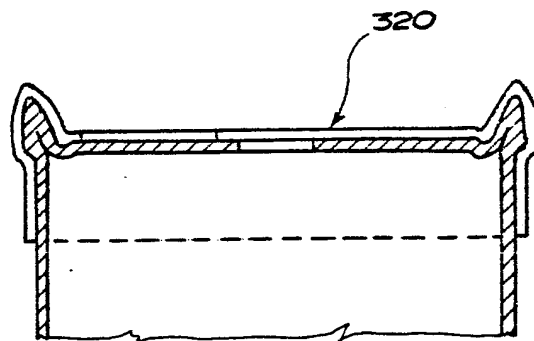
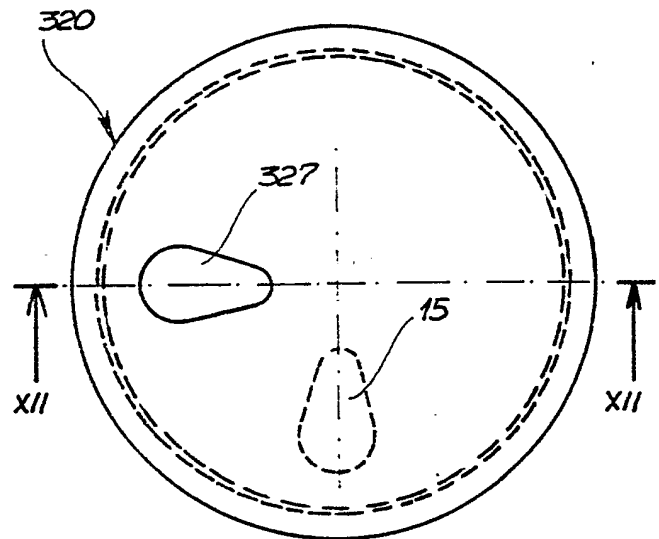
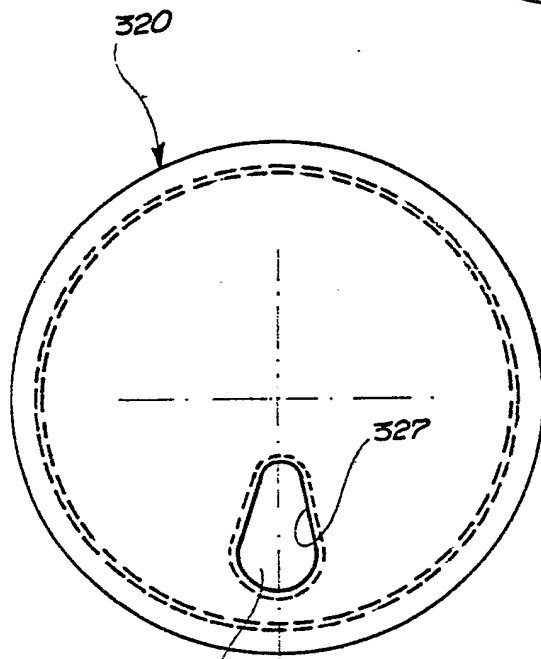
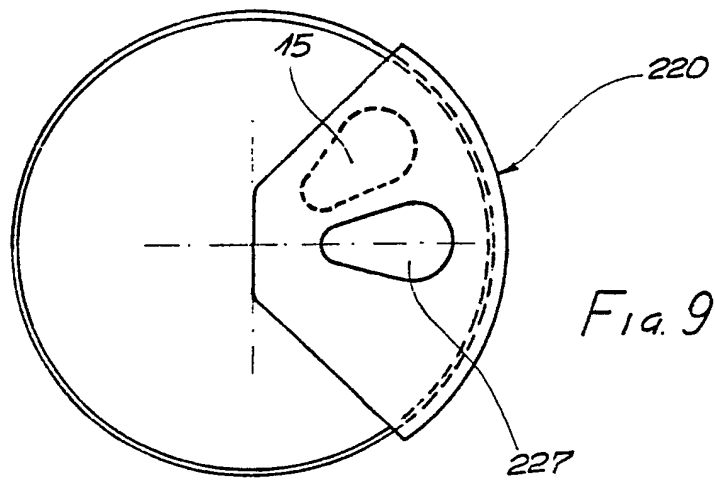


Fig. 12



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EUROPEAN SEARCH REPORT

Application Number

EP 90 83 0271

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	EP-A-0 166 483 (PROCTER & GAMBLE) * page 11, line 34 - page 14, line 4; figure 5 *	1-4,6-8	B 65 D 51/18 B 65 D 17/50
X	FR-A-2 128 603 (ALUMINIUM COMPANY) * page 3, line 13 - page 4, line 36; figure 1 *	1-5,9	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B 65 D
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 24-08-1990	Examiner LORENZ P A
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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US-CL-CURRENT: 220/269

ABSTRACT:

The invention refers to a device for the

hygienic protection particular of containers for liquids.

According to the invention the device includes a first, basically flat portion (21), capable of fitting over at least a fraction of the lid (11) of the container (10) in question, and a second portion (25), basically perpendicular to the first one, capable of fitting over at least a portion of the side surface (12) of the container itself, in the proximity of its upper edge.